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EXAMINER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



**DETAILED ACTION**

***Response to Amendment***

1. All outstanding objections and rejections, except for those maintained below, are withdrawn in light of applicant's amendment filed on 6/2/2008.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 6/2/2008. In particular, original claim 2 has incorporated into claim 13. Thus, the following action is properly made final.

***Information Disclosure Statement***

4. The information disclosure statement filed 05/06 /2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because copies of the non-patent literature cited in the IDS have not been provided. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Claim Objections***

5. Claim 1 is objected to because of the following informalities: claim 1 recites “together with a dye of formula (2) a dye of formula (6) which appears to be a typographical error of “together with a dye of formula (2) and a dye of formula (6)”. Appropriate correction is required.
6. Regarding claim 9 which recites “coloured by a combination”, it appears that "of dyes" is missing after "combination". It is suggested that claim 9 should instead recite “coloured by a combination of dyes”.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3, 9, 12-17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzikas (WO 2002/072707) in view of Clement et al (WO 2002/059215), and Hirahara et al (US 4,814,366).

Regarding claim 1, Tzikas teaches a method of producing colored plastics or polymeric color particles, or which method comprises the steps of admixing with a plastic or polymeric particles a dye of formula (1) (Page 4, Formula 1 of instant application is substantially similar to Formula 10 of reference) together with a UV absorber and optionally further dyes and processing the resulting mixture to obtain the colored plastic's or polymeric particle's final form (Page 7). Tzikas teaches a method for dyeing semi-synthetic or synthetic hydrophobic fiber materials comprising an azo dye which are thermostable and exhibit good all-round fastness properties (Page 1, Paragraph 2, Lines 1-3).

Tzikas does not teach a method comprising the step of mixing a dye of Formula (2). However, Clement et al teaches a method comprising an azo dye of formula (2) with a plastic or polymeric particles (Page 3, Formula (2) of instant application is identical to Formula (3) of reference). Furthermore, Clement et al teaches an analogous process wherein a thermostable dye is used which yield high-temperature lightfast dyeing and has high color strength and exhibits good all-round properties (Page 1, Paragraph 3, Lines 1-3).

Both Tzikas et al and Clement et al teach process wherein a thermostable dye is used which yields high temperature lightfast dyeing and produces articles which have high color strength and exhibit good all-round properties.

From these findings, a combination of known additives for their well-known function or property would have been prima facie obvious to one of ordinary skill in the art at the time the invention was

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made. The motivation to make the combination stems from the express disclosure in each of the references to combine each azo dye with polymeric particles.

Furthermore, “It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be prima facie obvious.). See also In re Crockett, 279 F.2d 274, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and Ex parte Quadranti, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held prima facie obvious).

Modified Tzikas teaches all the claim limitations as set forth above. However, the reference does not disclose a method comprising dye Formula (6).

Hirahara et al discloses a method wherein copper phthalocyanine blue which is disclosed by the Merck Index as having the same structure as Formula (6) is combined with polyesters such as PBT, PEN and PET (Column 9, Lines 45-67 and Lines 10 Lines 1-2 and lines 37-39). Furthermore, the reference disclose that the pigment is added to composition because it is highly compatible with the polyester and shows sufficient heat stability and color tone stability at the temperatures at which the polyester is produced and processed (Column 10 Lines 48-53).

Given that both Tzikas and Hirahara et al discloses processes wherein a thermostable dye is used which produces articles which have high color strength and exhibit good all-round properties and given that Tzikas does not explicitly prohibit other ingredients, in light of the particular advantages provided by the use of the copper phthalocyanine as taught by Hirahara et al, it would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to include such dyes in the process disclosed by Tzikas with a reasonable expectation of success

Regarding claim 3, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas teaches a method in which the UV absorber is selected from the .group consisting of 2-(2'- hydroxyphenyl)benzotriazoles, the-2-hydroxybenzophenones, esters of substituted or unsubstituted benzoic acid, the acrylates, the oxamides, 2-(2-hydroxyphenyl)-1,3,5-triazines, the monobenzoates of resorcinol, the formamidines, (Page 8, Paragraph 4, Lines 1 -4) and polyester UV absorbers of Formula (7) (Page 9, Formula (7) of instant application if substantially similar to Formula (60) of the reference).having a specific weight of from 1200 to 1400, at 25°C (Page 9, Line 1)

Regarding claim 9, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas et al teaches plastics or polymeric particles colored by a combination according to claim 1 (Page 7, Paragraph 5, Lines 1-2).

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Regarding claim 12, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas et al teaches a method , wherein the colored plastics or polymeric particles material obtains its final form as a result of calendering, compression molding, extrusion, coating, spinning, pouring or injection molding (Page 7, Paragraph 6, Lines 5-6 and Page 8, Line 1)

Regarding claim 13, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas teaches a method wherein the admixing of the plastics or polymeric particles, the dyes of Formulae (1) and (2) and a UV absorber is achieved by using a roll mill or mixing or grinding apparatus (Page 7, Paragraph 6, Lines 1-3). Regarding dye Formula (6) it would have been obvious to one of ordinary skill in the art at the time the invention was made to mix the dye with a mixing apparatus in order to disperse the dye as one of ordinary skill in the art would know that in order to obtain a uniformly colored composition a mixing apparatus is typically used.

Regarding claim 14, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas teaches a method wherein the admixture of the dyes and the UV absorber is effected immediately prior to the processing step by feeding a dye, a UV absorber and granulated or pulverulent plastic or polymeric particles and, optionally additional ingredients, directly into the intake zone of an extruder wherein mixing occurs just before processing (Page 8, Paragraph 1, Lines 3 – 9).



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Regarding claims 15 and 19, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas et al teaches a method wherein the plastic or polymer has a dielectric constant  $\geq 2.5$  (Page 11, Paragraph 2, Line 4).

Regarding claims 16 and 20, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas teaches a method wherein the plastic or polymer is selected from the group consisting of polyesters, polycarbonates (PC), polystyrene (PS), polymethyl methacrylate (PMMA), polyamides, polyethylenes, polypropylenes, styrene/acrylonitrile (SAN) and acrylonitrile/butadiene/styrene (ABS) (Page 11 Paragraph 2, Lines 4-7).

Regarding claim 17, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas teaches a method wherein the plastic or polymer is selected from the group consisting of linear aromatic polyesters obtained by polycondensation of terephthalic acid and glycols or 1,4-bis(hydroxymethyl)cyclohexane, polycarbonates, polymers based on polyvinyl chloride and polyamides (Page 8, Paragraph 4, Lines 1-3).

Regarding claim 21, modified Tzikas teaches all the claim limitations as set forth above. Additionally, Tzikas teaches a container for solid or liquid substances prepared from the colored plastic or polymeric colored particle (Page 11, Paragraph 2, Line 2).

Regarding claims 10 and 22, modified Tzikas teaches all the claim limitations as set forth above. Tzikas teaches that the disclosed composition can be used for solid or liquid substances

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(Page 11, Paragraph 2). However, the reference does not disclose that the combination is used for PET beer bottles

Hirahara et al discloses a composition comprising polyethylene terephthalate, dye and UV absorbers (Abstract, Column 9, Lines 38-40, and Column 10, Lines 37-53). The polyester composition has excellent gas barrier properties and improved UV screening to prevent deterioration of container contents (Column 1, Lines 35-49). As a result the composition is used to make hollow containers such as used for juice drinks, sake wine and carbonated beverages. (Column 11, Lines 18-31).

Hirahara et al discloses a composition for containers which has good gas barrier properties, improved UV screening and can be utilized for alcoholic or carbonated beverages. Modified Tzikas discloses a composition which can be used as a container for liquids. Given that modified Tzikas and Hirahara et al are drawn polyethylene compositions comprising UV absorbers and dyes, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the composition disclosed by modified Tzikas for beer bottles as doing so would amount to nothing more than use of known composition for its intended use, in a known environment to accomplish entirely expected results.

### ***Response to Arguments***

9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments, see Page 7 of Remarks, filed 6/2/2008, with respect to the rejection(s) of claim(s) 2 under Tzikas in view of Clement and Christensen have been fully considered and are persuasive as accurate English translation of Swiss document 2002 1483/02 was filed as the reference is no longer available under prior art. However, as original claim 2 was incorporated into claim 13, a new ground(s) of rejection is made in view of Clement and Hirahara et al, specifically see the rejection set forth above in Paragraph 7.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER C. KOLLIAS whose telephone number is (571)-270-3869. The examiner can normally be reached on Monday-Friday, 8:00 AM -5:00 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. C. K./

Examiner, Art Unit 1796

/VASUDEVAN S. JAGANNATHAN/

Supervisory Patent Examiner, Art Unit 1796